Preface

Each year, the Legislative Services Agency prepares reports for the Legislative Council in accordance with IC 2-5-21. In accordance with Legislative Council Resolution 98-14, this report concerns the impact of the ISTEP+ Graduation Qualifying Exam on students with learning disabilities. It has been prepared for use by the Education Matters Evaluation Committee.

We gratefully acknowledge all those who assisted in the preparation of this report.

Staff contact and general correspondence:

Bernadette Bartlett
Indiana Legislative Services Agency
200 W. Washington St., Ste. 301
Indianapolis, IN 46204
(317) 232-9586

Copies of this report may be obtained from:

Legislative Information Center
Indiana Legislative Services Agency
200 W. Washington St., Suite 230
Indianapolis, IN 46204
(317) 232-9856

Table of Contents

List of Figures

Summary

The Impact of the Indiana Graduation Qualifying Exam (GQE) on Students with Learning Disabilities

Legislative Council Resolution 98-14 directed the study of the impact of the Indiana GQE on students with learning disabilities. Findings are presented below.

Benefits

Since the initial 1997 GQE, an estimated 26% of students with learning disabilities have achieved the passing score.

The primary benefit of requiring students with learning disabilities to participate in the GQE is that some students may achieve the passing score who may not have otherwise achieved at this level. Although identifying which students would not achieve the passing score without the requirement is not possible, many students who did not achieve the passing score on the initial GQE achieved it on subsequent exams. A 1999 survey of Indiana directors of special education planning districts indicated that on the initial 1997 GQE (for the Class of 2000), 15% of students with learning disabilities achieved the passing score; on the first retest, 17%; and on the second retest, 6%. Overall, 26% of students with learning disabilities achieved the passing score on the GQE (26% considers all students who took the test in 1997, 1998, and 1999). Requiring students with learning disabilities to take the GQE also ensures that academic expectations apply to all, academic achievement and progress are measured for all, educators are accountable, a comprehensive picture of educational services is available, and students should have access to the curriculum and instruction necessary to achieve.

Drawbacks

Although research does not establish a definitive link, some studies suggest that GQEs may contribute to the dropout rate for students with learning disabilities.

Since the 1997 GQE, an estimated 74% of students with learning disabilities have not achieved the passing score. Not achieving the passing score may result in discouragement, lowered self-esteem, retention, and remediation. All four factors may contribute to a student's decision to drop out. Research indicates that having to enroll in remediation may prevent a student from enrolling in vocational education or other electives that may keep the student in school. In addition, retaining a student or placing a remediation student in classes designed for younger students may also contribute to the student's decision to drop out.

Graduating Without Achieving the Passing Score

Students may graduate without achieving the GQE passing score if they meet certain criteria as outlined in Public Law 193-1999.

Provisions for a waiver of the GQE requirement have been in the Indiana Administrative Code since 1997. These provisions were placed in statute in 1999 (although the term "waiver" and "appeal" were not included). To be eligible to graduate without achieving the passing score, a student must take the GQE each year, complete

remediation, and maintain a C average and a 95% attendance rate. The student must also obtain recommendations from teachers containing documentation from classroom work of achievement in areas tested on the GQE for which the student has not achieved the passing score. For students with learning disabilities, case conference committees determine if they meet the criteria. A survey of special education directors indicated that an estimated 22% of students with learning disabilities may meet the above criteria. However, other students with learning disabilities may not have the skills necessary to achieve the passing score. To assess their skills, the Indiana Department of Education is considering using the Indiana Assessment System of Educational Proficiencies (IASEP), an alternate system of assessing academic proficiencies primarily designed for students with severe disabilities.

Accommodations

Research regarding the impact of accommodations on the GQE is ongoing.

Accommodations to the presentation, setting, timing, or response mode of the GQE are designed to enable students with disabilities to participate in a manner that does not render the test invalid. The Department maintains a non-exhaustive list of accommodations. Research on testing accommodations is ongoing.

The Lawsuit Against Indiana

Students with disabilities have sued the Indiana Department of Education over the GQE requirement.

In May 1998, four Indiana students with disabilities filed a class action lawsuit in the Marion County Superior Court against the Indiana Department of Education. The students argued that they received insufficient notice of the GQE requirement; were not allowed accommodations as specified in their individualized education programs (IEPs); were exempt from taking the GQE if their IEPs indicated so; and did not have access to the curriculum necessary to achieve the passing score on the GQE.

In April 1999, the court found that the students had not achieved all other graduation requirements; therefore, the case was not ripe for judicial review. Second, the plaintiffs failed to exhaust administrative remedies. Third, the local case conference committees and the schools, not the State, determined that the students should take the GQE. Fourth, local school districts, and not the State, were responsible for following state academic standards and providing necessary instruction. Fifth, the students did not apply for a waiver.

While the court denied the motion to certify a class with respect to the majority of the case, it allowed a narrow issue to continue in litigation. It determined that students whose IEPs specify that all portions of an exam must be read aloud could continue with the suit because the State does not allow the reading comprehension portion of the GQE to be read aloud.

Conclusion

The GQE requirement first applies to the graduating class of 2000. The full impact of the requirement may not be evident until the year 2000 and thereafter. The Department of Education should monitor the effects of the GQE on students with learning disabilities in order to obtain a comprehensive picture of the GQE and its impact on these students.

Introduction

This report addresses the impact of the GQE on students with learning disabilities. The report is divided into the following ten sections:

Section One provides an overview of the GQE.

Section Two describes students with disabilities in general and students with learning disabilities in particular.

Section Three outlines federal guidelines regulating the provisions of educational services to students in special education.

Section Four details the value of a high school diploma in terms of employment and earnings.

Section Five presents indicators of educational achievement for students with learning disabilities in comparison with all other students. Indicators include graduation rates, dropout rates, GQE scores, participation and performance in vocational education, and postsecondary employment.

Section Six outlines the benefits of including students with learning disabilities in the GQE requirement.

Section Seven explains the drawbacks of including students with learning disabilities in the GQE requirement.

Section Eight examines issues relating to the use of accommodations and their effect on the GQE.

Section Nine summarizes legal action taken against the Indiana Department of Education with respect to the GQE requirement and students with learning disabilities as of June 1999.

Section Ten suggests considerations for future study.

Reason for the Study

1995

Achieving the Passing Score Is a Prerequisite to Graduation in Indiana. Public Law 340-1995 requires that beginning with the graduating class of 2000, students who wish to graduate from high school with a diploma must achieve the passing score on the GQE.

1997

Federal Law Requires All Students To Be Tested. Federal Public Law 105-17 requires that by July 1, 2000, students with disabilities must participate in statewide assessments if such assessments are given. Indiana could lose approximately $110 million annually in federal funding for special education if the state does not comply with federal requirements.

1998

Indiana Requires Students with Disabilities to Achieve the Passing Score or Apply for a Waiver. Public Law 12-1998 provides that a student with a disability must be tested (with accommodations or by means of an alternate assessment if appropriate) or apply for a waiver of the requirement as provided in administrative rule.

Students with Disabilities Respond. In May 1998, four students filed a class action complaint in the Marion County Superior Court against the State claiming that inadequate notice of the testing requirement was given; testing accommodations were not provided; students did not have access to state academic standards tested on the GQE; and students' IEPs could exempt them from the testing requirement.

In August 1998, Parents Against Gateway Exams testified before the Legislative Evaluation and Oversight Policy Subcommittee that requiring students with disabilities to achieve the passing score on the GQE could increase dropout rates. Additionally, they said that students who complete required high school credits but do not achieve the passing score should not be denied a diploma. Parents reported that students with disabilities were unable to achieve the passing score for reasons including but not limited to the following: (1) anxiety; (2) writing difficulty; (3) visual disorganization; (4) reading comprehension difficulty; (5) and communication problems.

Section One: Overview of the GQE

The following provides a synopsis of the history and composition of Indiana's GQE. The GQE was developed specifically for Indiana and exit exams of other states may differ substantially in both purpose and composition.

Testing Purposes

Public Law 390-1987 establishes the Indiana Statewide Testing for Educational Progress Program (ISTEP) to:

(1) assess the strengths and weaknesses of school performance;
(2) assess the effects of educational programs;
(3) compare achievement with students nationally; and
(4) provide information on academic progress and the need for remediation and staff development.

In subsequent years, legislative changes were enacted to ensure student and school corporation accountability.

Student Accountability. Public Law 340-1995 places accountability on students by requiring that beginning with the graduating class of 2000, students must achieve the passing score on the GQE in order to receive a diploma.

School Accountability. Public Law 34-1996 requires each school corporation to publish GQE results. With the publication of results, the public has a means to evaluate school corporations.

Components of the GQE

Indiana tests students in grades 3, 6, 8, and 10 with the Indiana Statewide Testing for Educational Progress Plus (ISTEP+). A portion of the ISTEP+ test for 10th graders includes the GQE. The GQE is based on 9th grade proficiencies and consists of essay questions, multiple choice items, and mathematical problems. The criterion component, consisting of language arts and math only, measures student performance against the passing score.

Public Law 146-1999 adds a science exam under ISTEP+ for the 2002-2003 school year and a social sciences exam for the 2003-2004 school year. The State Board of Education will determine what grades are to be tested in these areas as well as the content and format of the tests.

The Passing Score

The passing score was adopted by the State Board of Education upon recommendation of the State Standards Task Force. For 1997 and 1998, the passing score for the language arts portion of the GQE was at least 466 out of a possible 800. The passing score for math was at least 486 out of a possible 720.

Public Law 146-1999 created the Education Roundtable that will replace the State Standards Task Force in recommending to the State Board the passing score for both sections of the GQE. The Roundtable is composed of representatives of business and community leaders; elementary and secondary education,

including special education; higher education; and two members of the Indiana Senate and two members of the Indiana House of Representatives. The Governor and the Superintendent of Public Instruction jointly serve as chair of the Roundtable. The Roundtable reviews and submits recommendations to the State Board.

State Academic Standards

The state academic standards are subject proficiency and skill guidelines that address what students should know in grades K-12. The Indiana Department of Education develops the state academic standards for the following subjects: (1) language arts; (2) math; (3) social studies; (4) science; (5) other subjects as determined by the Department.

The state academic standards must be revised and updated at least once every six years, coinciding with the textbook adoption cycle. The Superintendent of Public Instruction appoints an Academic Standards Committee for each subject to submit recommendations to the Education Roundtable for review. The Academic Standards Committee is also responsible for submitting recommendations on the standards to the Education Roundtable.[1]

The Indiana Department of Education is in the process of updating its state academic standards for math and language arts for use by school corporations in the 1999-2000 school year.

Curriculum Alignment

State law requires that the curriculum of each grade level from kindergarten through grade 12 must be consistent with state academic standards established by the State Board of Education. State law also requires that student achievement on the ISTEP+ and the GQE be measured relative to the state academic standards.

Remediation

If students do not achieve the passing score on the GQE, they may be required to enroll in remediation. Remediation may be conducted during regular school hours, after or before school, and during the summer.

Retests

The State Board of Education requires that students who do not achieve the passing score must retake the GQE at least once every school year (two opportunities in grade 11 and two opportunities in grade 12). (Retesting requirements for students with learning disabilities is explained later in the report.)

---

[1] Indiana Public Law 146-1999.

Testing Dates

The Indiana Department of Education recommends to the State Board of Education testing dates for the GQE. Figure 1 outlines testing dates.

Figure 1. **ISTEP+ GQE Testing Dates: Fall 1997 Through Spring 2000**

Class	Fall 1997	Fall 1998	Spring 1999	Fall 1999	Spring 2000
Class of 2000	1st Time Takers	1st Retest 1997	2nd Retest 1997	3rd Retest 1997	4th Retest 1997
Class of 2001		1st Time Takers		1st Retest 1998	2nd Retest 1998
Class of 2002				1st Time Takers	

Achieving the Passing Score Qualifies a Student to Graduate

Achieving the passing score qualifies a student to graduate. In order to receive a high school diploma, a student must also complete the state minimum requirement of 22 credit hours in core courses as well as 16 hours of electives. The student may be required to meet additional local standards.

Other Means to a Diploma

Students may graduate without achieving the passing score if they meet certain criteria as outlined in Public Law 193-1999.

Students who do not achieve the passing score on the GQE may receive a diploma if they:

(1) Complete with at least a "C" average all components of the CORE 40 college preparatory curriculum. (Many students with learning disabilities do not enroll in CORE 40 due to language or processing difficulties.)

(2) Meet the following criteria as outlined in Public Law 193-1999:

- take the GQE at least once each year;
- complete remediation;
- maintain a "C" average in core courses;
- maintain a 95% attendance rate;
- complete all other graduation credit requirements; and
- obtain recommendations from teachers that document classroom achievement in the areas tested on the GQE for which the student has not achieved the passing score. Recommendations must also be supported by the principal.

For students with learning disabilities, case conference committees (described in a later section of this report) determine if and how students meet the above criteria.

State Funding for ISTEP+ Testing and Remediation

ISTEP+ is funded with appropriations from the State General Fund and revenues accruing to the State Secondary Market Sale Fund. In addition, for Fiscal Years 1998 and 1999, transfers from State tuition support supplemented GQE remediation. State General Fund line item appropriations will replace State tuition support transfers for Fiscal Years 2000 and 2001 for supplemental GQE remediation. ISTEP+ distributions are made to CTB/McGraw-Hill and to school corporations that qualify for preventative and remediation grants. CTB/McGraw-Hill develops, administers, proctors, and scores the four grade examinations for approximately $3 million per grade. For Fiscal Year 1998, CTB/McGraw-Hill received approximately $12 million from the State, and approximately $13 million for Fiscal Year 1999. Figure 2 outlines allocations and transfers.

Figure 2. **Funding Allocations for ISTEP+ Testing and Remediation**
Fiscal Year 1998 Through 2001

	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Fiscal Year 2001
Grades 3, 6, 8, and 10				
State General Fund Allocation for Testing	$5,458,574	$6,427,795	$10,900,000	$10,900,000
Secondary Market Sale Fund Allocation for Testing	$7,017,788	$6,672,385	$6,400,000	$6,400,000
State General Fund Allocation for Remediation	$21,384,418	20,415,197	$20,415,197	$20,415,197
Sub-Total	$33,860,780	$33,515,377	$37,715,197	$37,715,197
G Q E				
Supplemental Transfer from State Tuition Support for GQE Remediation	$4,958,910	$4,958,910		
Supplemental Appropriation from State General Fund for GQE Remediation			$4,958,910	$4,958,910
Total	$38,819,690	$38,474,287	$42,674,107	$42,674,107

The Department distributes remediation grants after each fall administration of ISTEP+. (Grants ranged from $20 to $160 per pupil for calendar year 1999, depending on the scores of the students.) For the fall 1997 administration, all 294 school corporations received remediation grants. ISTEP+ remediation monies do not "follow the student," and can be used to remediate any student. Each May the Department distributes supplemental GQE remediation monies based on the number of students who did not achieve the passing score. For the fall 1997 administration, all but four of the 294 school corporations received supplemental GQE remediation grants, totaling approximately $4.9 million in Fiscal Year 1998. Supplemental remediation funding "follows the student," and, therefore, can be used to remediate only the student who generated the funding.

Section Two: Students with Learning Disabilities

Indiana Code 20-1-6-1 defines a student with a disability as a student:

> ...who because of physical or mental disability is incapable of being educated properly and efficiently through normal classroom instruction, but who with the advantage of a special educational program may be expected to benefit from instruction in surroundings designed to further the educational, social, or economic status of the child.

A learning disability is a specific type of disability. The Indiana Administrative Code (511 IAC 7-11-7) specifies that a learning disability:

> (1) is characterized by severe specific deficits in perceptual, integrative, or expressive processes that severely impair learning efficiency;
> (2) includes conditions referred to, or previously referred to, as perceptual handicaps; brain injury; minimal brain dysfunction; dyslexia; and developmental aphasia;
> (3) may be manifested in disorders of listening, thinking, talking, reading, writing, spelling, or arithmetic reasoning.

Students with learning disabilities generally have average to above average intelligence.

The federal Individuals with Disabilities Education Act (IDEA) defines a specific learning disability as:

> ...a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations (34 CFR Section 300.7(c)(10)).

Figure 3.

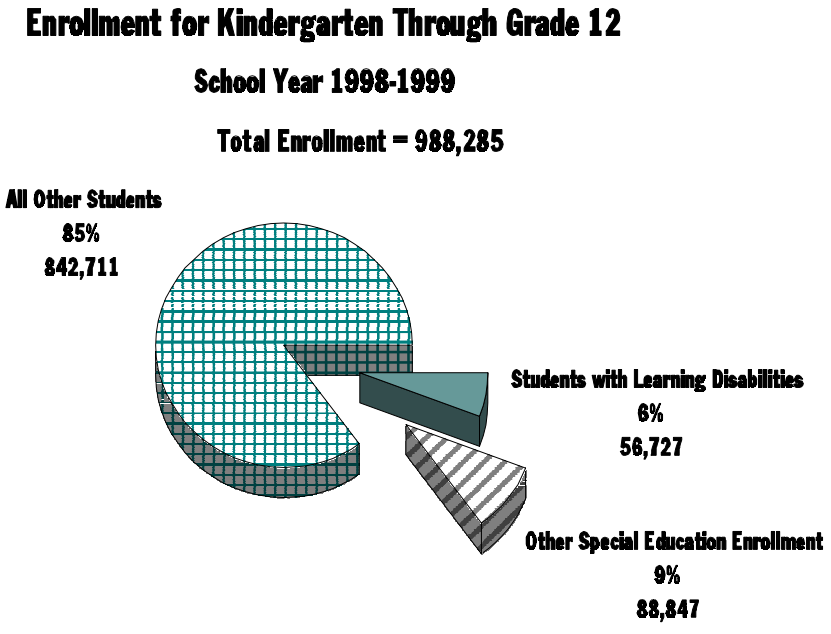


Figure 3, above, presents percentages of students with learning disabilities, other special education enrollment, and all other students in grades kindergarten through 12. As Figure 4 indicates, a learning disability is one of several different types of disabilities.

Figure 4. **Enrollment in Kindergarten Through Grade 12 by Disability**
School Year 1998-1999

Type of Disability	Number of Students	Percent with the Disability
Learning Disability	56,727	39.0%
Communication Disorder	45,322	31.1%
Mental Handicap	23,145	15.9%
Emotional Handicap	10,554	7.3%
Other Health Impairment	2,444	1.7%
Autism	2,011	1.4%
Orthopedic Impairment	1,583	1.1%
Other Disabilities	1,512	1.0%
Multiple Handicap	1,141	0.8%
Visual Impairment	671	0.5%
Traumatic Brain Injury	437	0.3%
Dual Sensory Impairment	27	0.0%
Total	145,574	100%

Source: 1998-1999 Special Education Statistical Report, Indiana Department of Education
Note: Percents may not add up to 100% due to rounding.

During the 1998-1999 school year, the total number of students with disabilities was over 145,500[2]--almost 15% of the public enrollment for grades kindergarten through 12. Of the total with disabilities, 39% had a learning disability; 31% had a communication disorder;[3] 15.9% had mild mental handicaps;[4] and 7.3% had emotional handicaps.

Students with learning disabilities:

- typically score below the 10th percentile on achievement measures in reading, writing, or math; and

[2] The Department of Education uses three methods to count the number of students with disabilities. A state duplicated count was used until 1995 as the basis for the Additional Pupil Count used in the school funding formula. This measure is used for information and monitoring purposes because it reflects the extent to which some students receive more than one school service. Since 1995, a state-modified unduplicated count has been used allowing for students who receive services for both communication disorders and for other services to be counted twice. (For example, students with autism may be counted in both the following categories: (1) autism; and (2) communication disorders.) All other students are counted once. The federal unduplicated count would likely be considered the truest count of students since it has not permitted any duplications since the mid 1970's. This measure was used to report the number of students with learning disabilities above.

[3] 511 IAC 7-11-2 specifies that a communication disorder is characterized by one or more of the following disorders that adversely affect educational performance: (1) articulation; (2) fluency; (3) voice; (4) comprehension or expression of spoken or written language; or (5) a severe communication deficit that may require the use of an augmentative communication system.

[4] 511 IAC 7-11-8 specifies that a student with a mild mental handicap will: (1) generally exhibit measured intelligence two or more standard deviations below the mean or average of the testing instrument used; and (2) usually exhibit an adaptive behavior profile within the range of a mild mental handicap.

- read and write at the fifth grade level when they are in secondary school.[5]

The Prevalence of Learning Disabilities

The statewide prevalence rate for students with learning disabilities was roughly 6% of total enrollment during the 1998-1999 school year.[6] The rate by special education planning district (described below) ranged from a low of 3.4% (East Allen County Schools) to a high of 10% (New Castle Area Programs for Exceptional Children).

Figure 5 presents enrollment by grade level for students with learning disabilities in grades 9 through 12 for 1999. Total enrollment for these students equaled 18,701. Total high school enrollment equaled 291,362 for 1998. Students with learning disabilities constituted 6% of the high school population.

Figure 5.

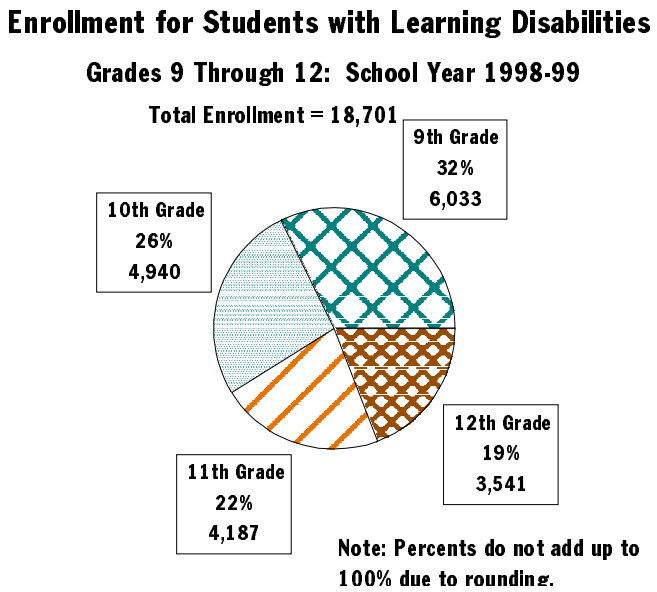
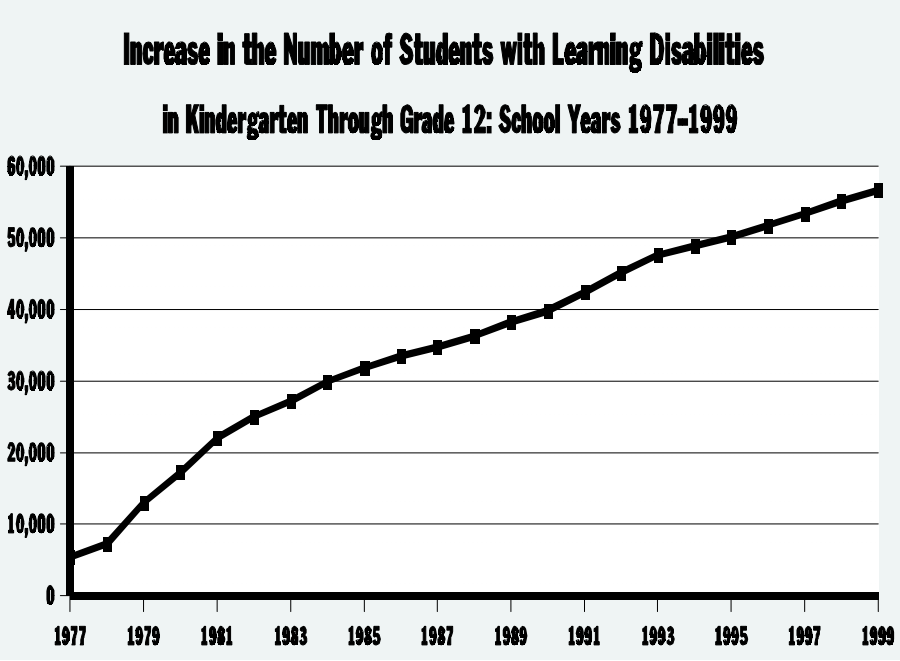


Figure 6 shows that the number of students with learning disabilities in kindergarten through grade 12 has increased from fewer than 5,422 in 1977 to over 56,000 in 1999. Reasons attributed to this increase include:[7]

Figure 6.



- improvements in medical technology that have resulted in an increase in the number of low birth-weight babies who survive;
- the intelligence quotient cutoff for mild mentally handicapped students changed from 85 to 70 in the late 1970s, and students once identified as mentally handicapped may have been more accurately identified as having learning disabilities;
- the federal Education for All Handicapped Children Act in 1975 and subsequent federal laws mandated services and provided funding to implement services for students with disabilities.

---

[5] Cecil Mercer, Students with Learning Disabilities (Upper Saddle River: Prentice-Hall, Inc., 1997) 22.

[6] Based on data provided by the Indiana Department of Education.

[7] James McLeskey, Ph.D., Indiana University School of Education, personal interview, 27 May 1999.

Section Three: Special Education and Federal Law

From the federal Vocational Rehabilitation Act in 1973 to the Individuals with Disabilities Education Act Amendments of 1997, states have been encouraged to include students with special education needs in school programs provided for the general student population. Federal legislation was designed to encourage states to identify students with special education needs, implement special education services in the least restrictive environment, provide a free and appropriate education, and develop individualized education programs (IEPs). In order to receive federal funding, states must follow federal laws that govern the establishment and implementation of special education services. Indiana Code 20-1-6-3 allows school corporations to act individually or in a joint school services program with other school corporations to establish and maintain instructional facilities for the instruction of students with disabilities. Indiana's 65 special education planning districts consist of all 294 school corporations.

Referring a Student for Evaluation

Either the school corporation or the parent or guardian may request that a student be evaluated for special education services. If the school district requests an evaluation, the parent or guardian must give consent in writing. If the parent or guardian requests an evaluation, the school corporation must evaluate the student or provide to the parents or guardians an explanation as to why the evaluation will not be conducted. If the school district does not evaluate the student, the district must also inform the parents or guardians of their right to a due process proceeding to review the district's decision. In cases where the student is evaluated, a multidisciplinary team, consisting of a teacher(s) or other specialist(s) knowledgeable about the suspected disability, conducts the evaluation at a cost to the district of approximately $2,200.[8] The team may also include a school psychologist, a speech and language pathologist, an occupational or physical therapist, an adapted physical education therapist, medical specialists, educational diagnosticians, or others.

Indiana received approximately $110 million in federal funding for special education programs in Fiscal Year 1998.

Case Conference Committees and Individualized Education Programs (IEPs)

If the evaluation indicates that the student requires special education, an individualized education program (IEP) is developed by a case conference committee, which consists, at a minimum, of a representative of the school district; the student's teacher; the student's parent, guardian, or custodian; and the student (if appropriate). An IEP establishes learning goals, courses of study (which do not have to include the curriculum necessary to receive a high school diploma), and

[8] Lorraine McDonnell, Margaret McLaughlin, and Patricia Morison, eds., Educating One & All: Students with Disabilities and Standards-Based Reform (Washington, D.C.: National Academy Press, 1997) 70.

support services that the school district will provide. A student may spend all, no, or part time in the general education classroom. Students are placed in an environment that is least restrictive and most approximates general education programs given the student's disability.

An Assessment Other Than the GQE May Be Appropriate for Some Students with IEPs

States that receive federal funding for special education programs must implement by July 1, 2000, alternate assessments for students with disabilities for whom the statewide assessment may not be appropriate. The Indiana Assessment System of Educational Proficiencies (IASEP) was developed as an alternate means to assess achievement of academic proficiencies. The IASEP operates on a computer-based program that allows educators to document assessment strategies and student outcomes electronically. The automated system also allows for audio and visual documentation. The assessment considers five major educational domains,[9] each consisting of several sub-domains.[10] Sub-domains are based on a series of specific proficiencies and essential skills that measure the overall progress of the student.[11]

Students participating in the IASEP receive ongoing assessments to document both levels of performance and progress toward independent academic functioning. For students with learning disabilities, proficiencies and essential skills are directly linked to the curriculum standards set by the state. For example, a student with a learning disability demonstrating proficiency in selecting and applying effective strategies for reading (part of the language arts sub-domain) would be required to "use meaning (semantic), the structural (syntactic), and sound (phonetic) cues" to understand a written passage (part of State language arts academic standards). A student demonstrating proficiency in the understanding of probability and its application to real life (part of the math sub-domain) would be required to "assign probabilities to an event" such as winning a game of monopoly (part of the State mathematics academic standards).

In addition to allowing educators the ability to document electronically assessment strategies and student outcomes, the IASEP allows educators to document accommodations and assistive technology as well as current and historical medical concerns. The IASEP also allows educators to record electronically IEP information in a format that ensures compliance with federal law and allows for statewide analysis.

The Department piloted the IASEP in nine Indiana special education planning districts during the 1998-1999 school year.[12] The IASEP will be available throughout the State during the 1999-2000 school year.

---

[9] The five main domains are (1) information acquisition and use; (2) personal adjustment; (3) social adjustment; (4) vocational experience; and (5) recreation and leisure.

[10] There are currently 18 sub-domains ranging from language arts, mathematics, science, and social studies to communication, work skills, physical fitness, and safety.

[11] There are 123 proficiencies and 513 essential skills.

[12] IASEP Pilot Special Education planning districts: (1) Clark County Special Education Cooperative; (2) Covered Bridge Special Education District; (3) Elkhart Community Schools; (4) Hamilton-Boone-Madison-Special Services; (5) Joint Educational Services in Special Education; (6) MSD Washington Township Schools; (7) New Albany-Floyd County Consolidated Schools; (8) North Central Indiana Special Education Cooperative; and (9) Richmond Community Schools.

Section Four: The Value of a High School Diploma

A survey of 1,800 employers in Indiana, conducted by the Indiana Education Information Center, indicated that 88% of employers, or 271 respondents, prefer to hire high school graduates rather than individuals without a high school diploma.[13] (The survey had a response rate of 308 out of 1,800.) Of the remaining 12%, or 37 employers, who hire individuals without a high school diploma for a significant number of positions, over half represented manufacturers.[14] A second survey of 250 high technology employers indicated that 95%, or 55 respondents (a response rate of 58 out of 250), prefer to hire high school graduates rather than individuals without a high school diploma. Five percent, or 3 employers, reported that they hire high school dropouts for a significant number of positions.[15] In both surveys, respondents indicated that math and English skills are necessary for positions beyond entry-level work as well as proficiency in algebra, geometry, statistics, reading technical manuals, writing clear expository prose, and offering a convincing and spontaneous defense of a concept.[16]

Earning potential is closely related to educational attainment. Based on an annual U.S. Bureau of the Census survey taken in March 1998, non-high school graduates with little or no technical skills can expect to earn less than their high school graduate counterparts, as indicated in Figure 7.

Figure 7. **U.S. Income by Educational Attainment for Persons 18 and Over**

Level of Education	Average Income	Number	Percent
Less than High School Graduate	14,131	35,244,000	17.85%
High School Graduate	21,680	66,076,000	33.47%
High School Graduate with Some College	24,916	38,258,000	19.38%
Vocational or Technical Degree	29,749	13,996,000	7.09%
College Graduate	40,695	30,087,000	15.24%
Masters, Professional, or Ph.D.	64,083	13,750,000	6.97%
All	27,741	197,412,000	100.00%

Note: The 1999 poverty guidelines, established by the U.S. Department of Health and Human Services, indicate that for a family of four, an annual income of $16,700 reflects a poverty existence.
Source: U.S. Bureau of the Census, "Educational Attainment in the United States: March 1998 (Update)." Current Population Reports pp. 20-513 (October 1998).

[13] Indiana Education Information Center, Great Expectations: A Report on Employer Expectations in Indiana (Indianapolis: Indiana Education Information Center, 1999) 5 and 14.

[14] Derek Redelman, Indiana Education Information Center, personal interview, 10 June 1999.

[15] Indiana Education Information Center 5 and 14.

[16] Indiana Education Information Center 3.

Section Five:
Indicators of Achievement

Graduation Rates. As Figure 8 indicates, for school years 1995 through 1998, graduation rates for students with learning disabilities ranged from 45% to 50%, with an average of 48%. The average annual number of students with learning disabilities who received a diploma was 2,064. In comparison, graduation rates for all students ranged from 83% to 88%. The average annual number of all students who received a diploma was 57,438. The graduation rates for 1997 and 1998 for both populations demonstrate an increase over 1995 and 1996 levels.[17]

Figure 8.

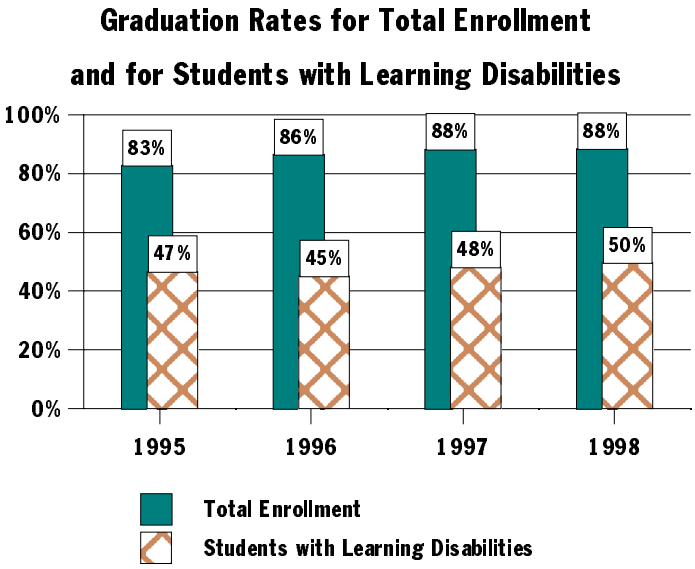
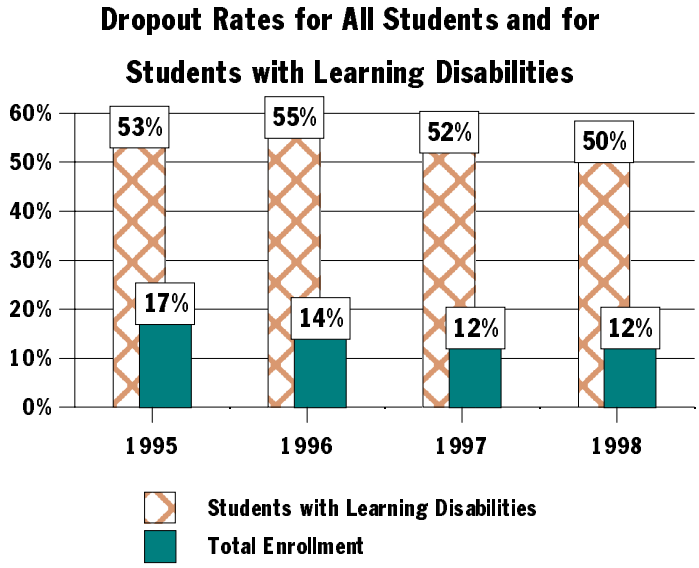


Figure 9.



Dropout Rates. Although some research, as detailed later in this report, suggests that GQEs may contribute to the dropout rate, the dropout rate in Indiana has not increased for the past two years, as Figure 9 indicates. The dropout rates for students with learning disabilities increased to 55% in school year 1996, but declined to 50% by school year 1998. The average annual number of students with learning disabilities who were reported to have dropped out was 1,388. For all students, the dropout rate of 17% decreased to 12% in 1997 and 1998.[18] The average annual number of all students who dropped out was 10,228.

---

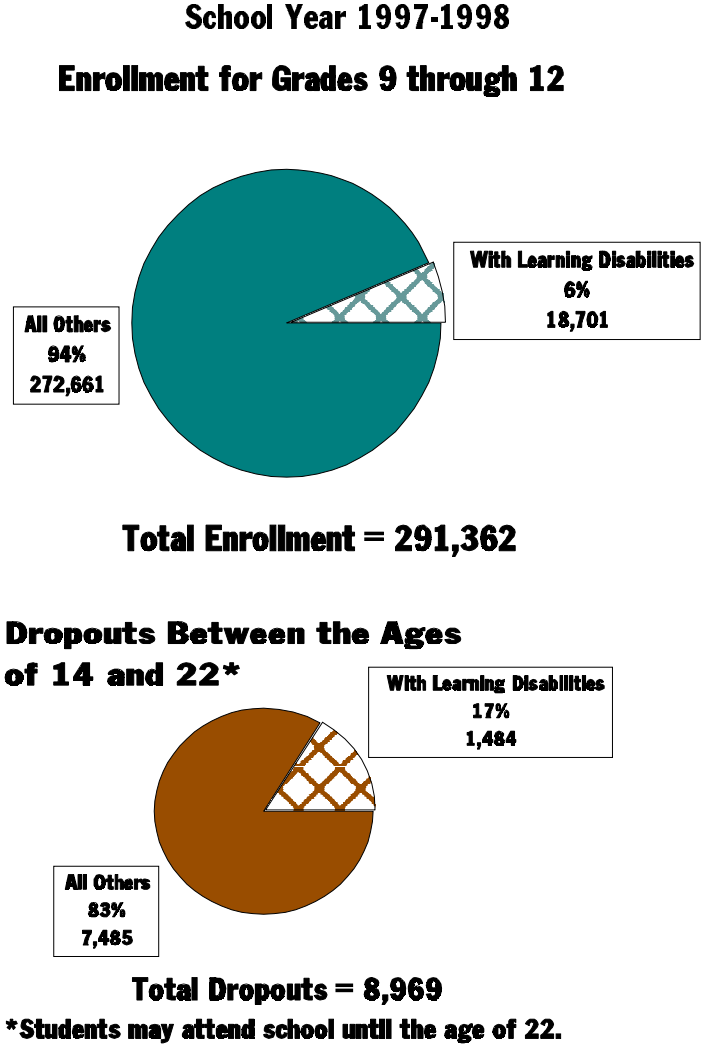
[17]The Department of Education calculates graduation rates for total enrollment by dividing the number of dropouts in each grade between 9 and 12 by enrollment in each grade between 9 and 12. This percentage is then subtracted from 100% to produce an attendance rate. The attendance rate for each grade is multiplied together to produce a graduation rate. Thus, the number of students who receive diplomas is not included in the graduation rate calculation.

[18] U.S. Department of Education, Calculating Graduation and Dropout Rates: A Technical Assistance Guide (Rockville: Westat, 1998).

Comparing Dropout and Enrollment Percentages. For school year 1998, students with learning disabilities constituted 6% of enrollment for grades 9 through 12. However, the dropout rate for students with learning disabilities constituted 17% of the total number of dropouts. As Figure 10 indicates, the percentage of students with learning disabilities who dropped out was disproportionate to the percentage of students with learning disabilities enrolled in grades 9 through 12.[19] (The above graduation and dropout rates do not account for students who leave school for other reasons, such as moving, receiving a certificate of attendance, etc..)

Figure 10. **Enrollment and Dropout Percentages for Grades 9 Through 12**

School Year 1997-1998



[19] Enrollment information by grade was compared to dropout information by age because the number of students by age was not available for the general education population.

It should be noted that some students with learning disabilities leave school without either graduating or dropping out. Between the 1995 and 1998 school years, on average, 5% of the students with learning disabilities either received a certificate of attendance, reached the maximum age, or moved out of the school district. The disparity in the dropout rate between students with learning disabilities and all other students is paralleled by the disparity in the percentages of these same populations who achieved the passing score on the GQE. As indicated below, the percentage of students with learning disabilities who achieved the passing score on the GQE is far less than the percentage of students in the general population who achieved the passing score.

Performance by Students with Learning Disabilities on the 1997 GQE

On the 1997 GQE, the Department of Education did not require students to indicate if they had a learning disability on the GQE student questionnaire. Consequently, statistics pertaining to the performance of students with learning disabilities on the 1997 GQE is not available on a statewide basis or from CTB/McGraw-Hill. In order to obtain results for the 1997 GQE, Legislative Services Agency surveyed directors of special education planning districts in May 1999 to obtain GQE results as well as related information. Of the 65 special education planning districts, 27 responded to requests for 1997 GQE results, representing a total sample population of 1,641, or 39% of all 11th grade students with learning disabilities. The survey also requested related information on subsequent student participation in remediation and retests. The number of directors who responded to these follow-up questions ranged from seven to 27. The response rate decreased to seven when directors were asked for results of the spring 1999 GQE. The decrease in the response rate can be primarily attributed to the fact that the majority of directors did not have the spring 1999 GQE results available at the time of the survey. It should also be noted that some survey responses may have included estimates from special education planning districts that did not have information readily available. The following statistics are based on results of the survey.

Achieving the Passing Score

- On the fall 1997 GQE, an estimated 15% of students with learning disabilities achieved the passing score; 85% did not.

Enrollment in Remediation

- After the fall 1997 GQE, an estimated 78% of students with learning disabilities who did not achieve the passing score on the 1997 GQE enrolled in remediation.

Results of the First Retest

- Of the students with learning disabilities who enrolled in remediation after the 1997 GQE, 16% subsequently achieved the passing score on the first retest; 84% did not.

Remediation for the Second Time

- An estimated 91% of students who failed the first retest enrolled in remediation for the second time.

Results of the Second Retest

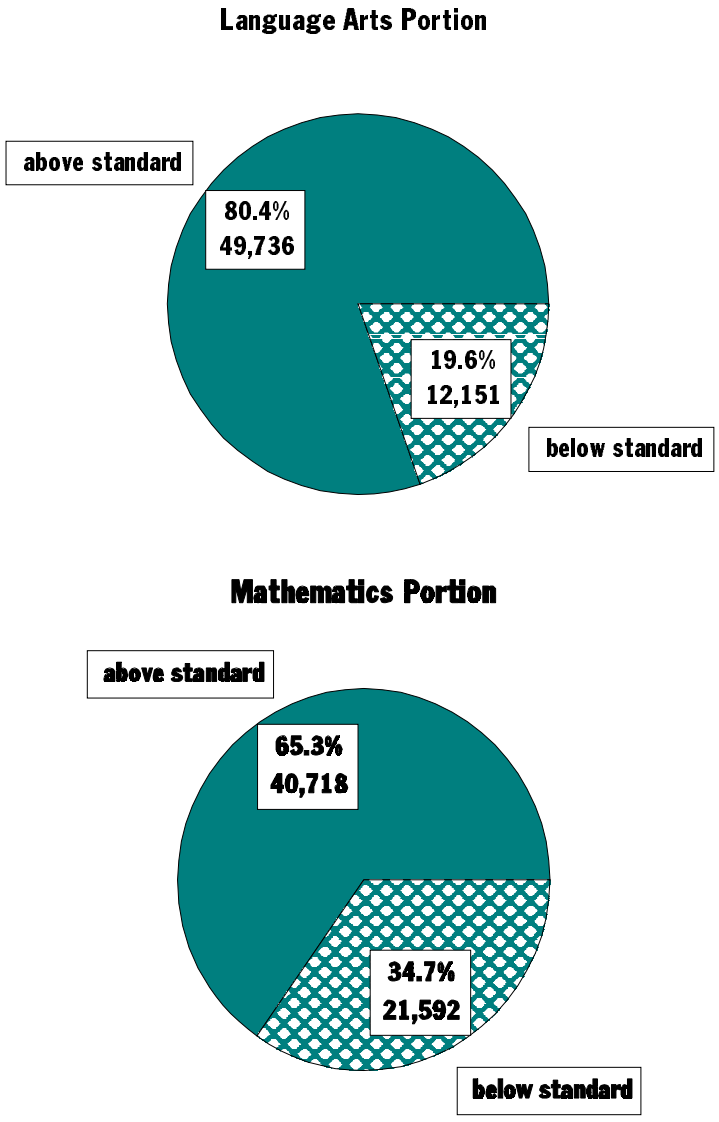
- For the spring 1999 retest, an estimated 6% of students with learning disabilities achieved the passing score on the second retest; 94% did not.

  Since the initial 1997 GQE, 26% of the students with learning disabilities have achieved the passing score and 74% have not. If all requirements remain the same, the graduation rate for these students would probably decline below historical graduation rates of around 48% for these students. However, as discussed later, meeting the passing score through alternate means may enable students who do not achieve the passing score to graduate with a diploma.

Performance by General Education Students on the Fall 1998 GQE

For the 1998 GQE schools were asked to indicate if students had a disability on the GQE answer sheet. Consequently, results from the 1998 GQE for both general education students and for students with learning disabilities are available from CTB/McGraw-Hill and are provided below. As Figure 11 below indicates, 80% of general education students achieved the passing score on the language arts portion of the fall 1998 GQE while 65% achieved the passing score on the math section.

Figure 11. Performance by General Education Students on the Fall 1998 GQE

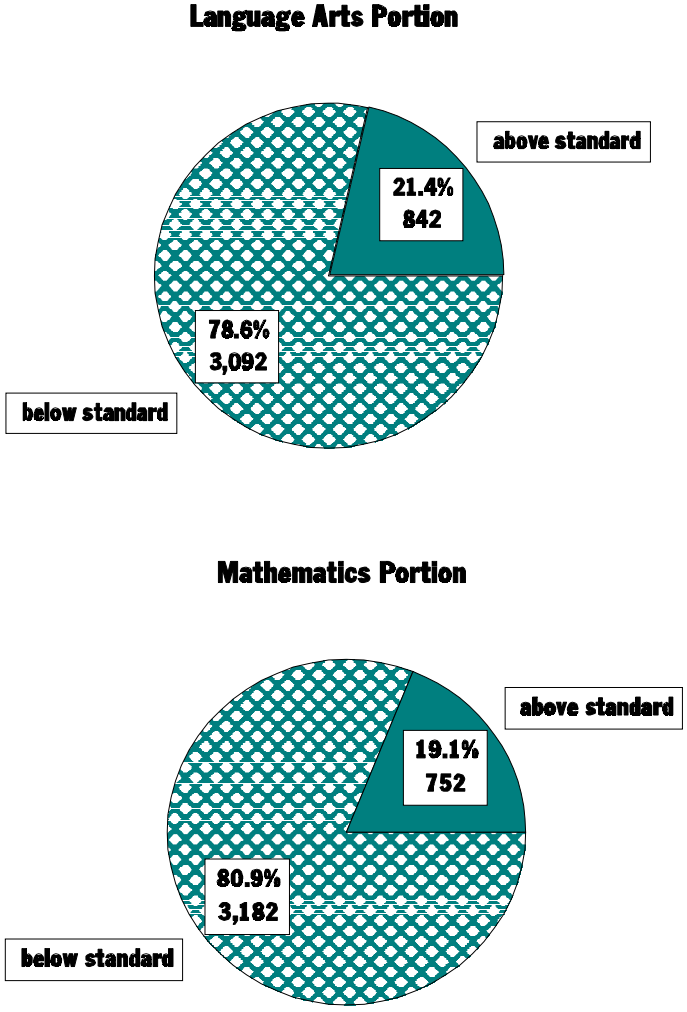


Performance by Students with Learning Disabilities on the 1998 GQE

As Figure 12 below indicates of the total number of students with learning disabilities taking the fall 1998 GQE, 21% achieved the passing score for language arts while 19% achieved the passing score on the math section. [20]

Figure 12.

Performance by Students with Learning Disabilities on the Fall 1998 GQE



[20] CTB/McGraw-Hill, LD students: Pass Rates and Testing Accommodation Summaries by Corporation (Monterey: CTB/McGraw-Hill, 1999).

The percentage of students with learning disabilities who achieved the passing score increased from an estimated 15% on the 1997 GQE to approximately 20% on the 1998 GQE. This increase could indicate improved performance from 1997 to 1998; however, the two different methods used for collecting the data for the two different years may also account for some of the difference (1997 data is based on a survey and 1998 data is based on scores reported by CTB/McGraw-Hill). Nonetheless, for both years, the majority of students with learning disabilities did not achieve the passing score.

Students with Learning Disabilities and Vocational Education

Research indicates that students with disabilities complete more vocational courses than other students.[21] Vocational education courses are typically more applications-oriented than general education courses, which tend to be more abstract and theoretical. Some research suggests that students with learning disabilities typically perform better when academic principles are taught and measured in an applications environment. The following section provides an overview of enrollment and performance by students with learning disabilities in vocational education.

Figure 13.

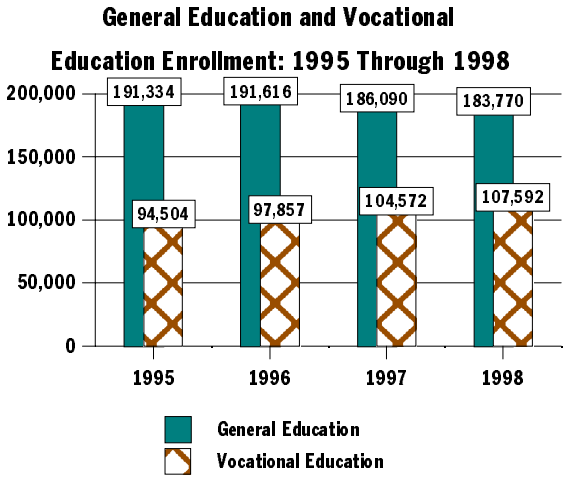


Figure 14.

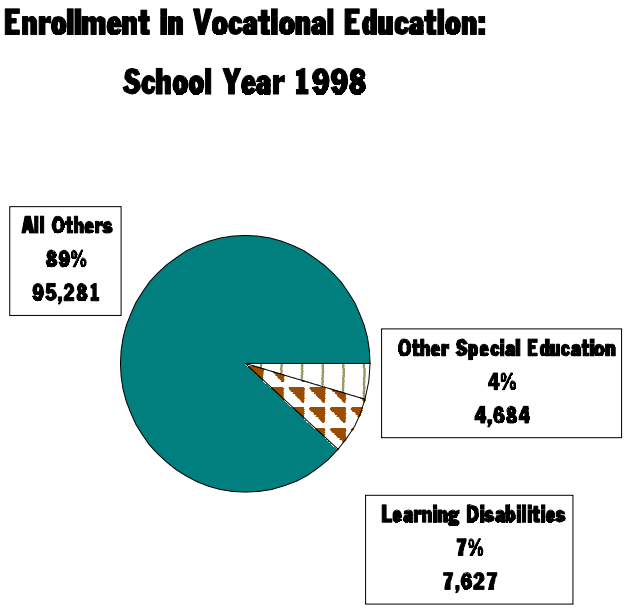


Figure 13 outlines enrollment for general education and vocational education from 1995 through 1998. Vocational education enrollment include students who enrolled in at least one vocational course for two or more semesters. Figure 14 below provides a breakdown by percentages of the enrollment in vocational education classes by three populations: students with learning disabilities, other students with disabilities, and all other students.

From 1995 through 1998, a greater proportion of students with learning disabilities enrolled in vocational education than did other students

[21] McDonnell, McLaughlin, and Morison 135.

with disabilities. The proportion of students with learning disabilities also exceeded the proportion of general education students who enrolled in vocational education. On average, 89,500 general education students, or 36%, enrolled in vocational education courses; 4,567 students with other disabilities, or 23%, enrolled in vocational education courses; and 7,065 students with learning disabilities, or 40%, enrolled in vocational education.[22]

Forty percent of students with learning disabilities enroll in vocational education.

Although a greater proportion of students with learning disabilities enrolled in vocational education, three of the top five programs (in terms of enrollments) in which students with learning disabilities enrolled also maintained high enrollments from all other students. These three programs consisted of Interdisciplinary Cooperative Education, Food and Nutrition, and Family Living and Parenthood. The other two top areas for students with learning disabilities, Auto Mechanics and Orientation to the World of Work, also registered high enrollments for all other students. In terms of enrollment, these two areas of specialization placed in the top ten for all other students.

Indicators of Achievement for Students with Learning Disabilities in Vocational Education

Some students with learning disabilities appear to have greater success in vocational education than in general education. The Department of Workforce Development and the Office of Career and Technical Education within the Indiana Department of Education maintain statistics on the performance of students in vocational education. The Departments calculate graduation rates for seniors in vocational education and monitor vocational education test scores and postsecondary placements for students with and without learning disabilities. (The Departments maintain these statistics in order to comply with federal funding requirements.)

Graduation Rates. The graduation rate for seniors in vocational education (as measured by the Department of Workforce Development) and vocational education test scores indicate less of a disparity between the two populations than do measures in general education. For instance, the graduation rate for students with learning disabilities who completed a vocational education program is comparable to the graduation rate for senior students without learning disabilities in vocational education. The average percentage of students who graduated from 1995 through 1998 for both students with learning disabilities and all other students equaled 92%. (It should be noted that the graduation rates were calculated based on the number of seniors and those who actually graduated.)

Vocational Education Test Scores. With respect to test scores in vocational education, federal funding requires that students in vocational education be given both a pre-test and a post-test. Vocational education districts have employed the Test of Adult Basic Education (TABE) for both the pre- and post-tests. Federal funding requires the Departments to report the percentage of students whose post-test scores reflect an increase over pre-test scores.

Results of the TABE from 1995 through 1998 indicate less of a disparity in performance between students

[22] Based on data provided by the Indiana Department of Workforce Development.

with learning disabilities and all other vocational education students than previously found in the GQE scores. Although students with disabilities were less likely to improve their scores on the math and English tests in vocational education, their percentages of improvement in the areas of occupational skills, exceeded those of all other students for 1995, 1996, and 1997, as indicated in Figure 15 below.

Figure 15. **Percentages of Students Who Improved in Math, English, and Occupational Skills on the Vocational Education Test of Adult Basic Education: School Years 1995 Through 1998**

	Percentage Who Improved Scores in Math		Percentage Who Improved Scores in English		Percentage Who Improved Scores in Occupational Skills	
School Year	Students with Learning Disabilities	All Other Students	Students with Learning Disabilities	All Other Students	Students with Learning Disabilities	All Other Students
1994-1995	64%	67%	64%	71%	70%	62%
1995-1996	57%	63%	65%	67%	67%	64%
1996-1997	59%	67%	63%	70%	68%	67%
1997-1998	65%	71%	66%	75%	82%	82%

Source: Department of Workforce Development.

Figure 15 indicates a significant increase in the percentage of students who improved across all categories from 1996-1997 to 1997-1998. This increase may be attributed to a change in federal funding requirements that ordered support services for any student who took the pre-test and scored below grade level.

Postsecondary Placement. The Department of Workforce Development tracks students who complete vocational education programs. Approximately 18 months after completion of the program, the Department and vocational education districts contact or locate students to determine if they are employed or continuing their education. As Figure 16 indicates, the percentage of students with learning disabilities who were employed was comparable to the percentage of all other students from 1995 through 1997. Rates of employment in the military, though low, were also comparable. The percentages of students with learning disabilities who were engaged in continuing education, however, were significantly lower than those of all other students. The average percentage for the three-year period for students with learning disabilities in continuing education equaled 14% while 28% of all other students were engaged in continuing education.

Figure 16. **Postsecondary Placement Statistics for Students with Learning Disabilities andfor All Others Who Completed a Vocational Education Program**

	Employment		Military		Continuing Education	
Year	With Learning Disabilities	All Other Students	With Learning Disabilities	All Other Students	With Learning Disabilities	All Other Students
1994-1995	68%	71%	2%	2%	12%	25%
1995-1996	72%	75%	2%	2%	16%	29%
1996-1997	75%	77%	1%	2%	14%	31%

Note: Based on data provided by the Department of Workforce Development.
Percents may exceed 100% because some students were both employed and continuing their education.

Postsecondary Employment. With respect to postsecondary employment, as Figure 17 indicates, the percentage of students with learning disabilities who were employed in a full-time position, which consisted of 409 individuals for 1997, was higher than the percentage of all other students, which consisted of 6,528 individuals. In addition to employment percentages, the average annual earnings in full-time employment for students with learning disabilities exceeded those of all other students who completed a vocational education program.

Figure 17. **Average Annual Earnings and Employment Rates for Students with Learning Disabilities and for All Others Who Completed a Vocational Education Program**
1995 Through 1997

School Year	Average Annual Earnings For All Other Students	Average Annual Earnings for Students with Learning Disabilities	Percent of All Other Students Who Were Employed Full-time	Percent of Students with Learning Disabilities Who Were Employed Full Time
1994-1995	$15,580	$16,368	40%	44%
1995-1996	$16,420	$17,504	40%	45%
1996-1997	$18,088	$18,856	43%	48%

Source: Department of Workforce Development.

Vocational Education As a Viable Option

Although the numbers of students with learning disabilities who participate in vocational education are small, vocational education, or applied courses, might provide some students with a viable option. Studies that have tracked students with learning disabilities who are enrolled in vocational education courses indicate that they are less likely to drop out. The National Longitudinal Transition Study (NLTS), conducted under the direction of Congress between 1987 and 1994, tracked more than 8,000 students with disabilities, including students with learning disabilities.[23] The NLTS found that:

> Permitting flexibility in course taking so that students with learning disabilities can pursue their vocational interests opens an important option. Students with learning disabilities who took occupationally oriented vocational courses in high school were significantly less likely to drop out than nonvocational students with learning disabilities (controlling for other differences between them). Yet widespread efforts to increase academic course requirements for high school graduation have had the effect of limiting, rather than expanding, curricular options for students who do not have academic postsecondary school goals.[24]

[23] McDonnell, McLaughlin, and Morison 94-95.

[24] Paul Gerber and Dale Brown, eds., Learning Disabilities and Employment (Austin: PRO-ED, Inc., 1997) 67.

Section Six: Benefits of Applying the GQE Requirement to Students with Learning Disabilities

Some of the benefits of applying the GQE requirement to students with learning disabilities are listed below.

- **Inclusion.** Federal laws governing the provisions of educational services to students with disabilities were generated by concerns that students with disabilities were ignored because educators were not required to account for their progress.[25] By requiring that educators be held accountable for the progress of students with disabilities in the same manner that they are held accountable for students in the general population, the federal laws were designed to ensure that students with disabilities would receive the same resources and attention as students in the general population.[26]

- **Student Accountability.** Requiring students with learning disabilities to achieve the passing score in order to be eligible to graduate with a diploma places accountability on students as well as the school district. All students must be tested and their progress measured. Prior to the requirements, standards identified for students with learning disabilities were individualized and varied, as opposed to uniform statewide academic standards.

- **Curriculum Alignment**. In order to allow students with learning disabilities to achieve, students must be provided with the appropriate curriculum. School districts must, therefore, align the curriculum with state academic standards, which may be higher than academic standards employed prior to the GQE.[27] The GQE requirement encourages school districts to provide curricula that adequately prepare students with a learning disability to succeed.[28]

- **Improved Scores.** The GQE requirement encourages students with learning disabilities to achieve and succeed academically.[29] Some students are not provided sufficient opportunities to succeed, and thus stagnate and become discouraged academically.[30] Certain states have reported that when given the opportunity, students with learning disabilities achieve passing scores on

---

[25] Indiana University-Bloomington, School of Education, Equity through Accountability? Mandating Minimum Competency Exit Examinations for Secondary Students with Learning Disabilities (Bloomington: Indiana University, School of Education, 1998) 4.

[26] Indiana University-Bloomington, School of Education 4.

[27] Mildred Bazemore, North Carolina Department of Public Instruction, personal interview, 13 Oct. 1998.

[28] Martha Thurlow, Judy Elliott, and James Ysseldyke, Testing Students with Disabilities: Practical Strategies for Complying with District and State Requirements (Thousand Oaks: Corwin Press, Inc., 1998) 7.

[29] Thurlow, Elliott, and Ysseldyke 7.

[30] Bazemore.

standardized examinations originally created for students in the general population.[31]

- **Increase in Independence.** Research indicates that succeeding on exams such as graduation exams can result in an increased sense of independence.[32]

- **A Comprehensive Picture of the Provisions of Education Services.** To provide decision makers and policy makers with a representative, accurate picture of the provision of educational services for all students, particularly of student performance in education, all students must be included in the accountability system.[33]

- **Improved Test-Taking Skills.** Students are taught test-taking strategies to reduce the stress associated with exams. Test-taking skills may also be applied in work-related or postsecondary educational assessments.[34]

- **High Expectations.** Including students in testing suggests that they are able to meet the expectations represented in the test. The majority of students with disabilities, parents, and teachers indicate that they want these students to meet the same academic standards as expected of the general population.[35]

[31] Bazemore.

[32] Indiana University-Bloomington, School of Education 13.

[33] Thurlow, Elliott, and Ysseldyke 4.

[34] Thurlow, Elliott, and Ysseldyke 12 -13.

[35] Thurlow, Elliott, and Ysseldyke 7.

Section Seven: Drawbacks of Applying the GQE Requirement to Students with Learning Disabilities

- **High GQE Failure Rates May Lead to Discouragement and Dropping Out.** Although the dropout rate for students with learning disabilities has declined slightly in the past two years, the dropout rate is still high. Many argue that the primary drawback of applying the GQE requirement to students with learning disabilities is that these students already have a high dropout rate and high failure rate on the GQE may lead to additional discouragement and dropping out. Richman, Brown, and Clark found that high risk students who failed minimum competency tests experienced a loss of self-esteem and increased levels of apprehension.[36] MacMillan, Balow, Widaman, and Hemsley found that students failing competency tests had lower self-concepts in regard to academics.[37] Catterall also found that competency test failure reduced students' self-esteem.[38]

  In addition, because students with learning disabilities have a high failure rate on the GQE, these students are more likely to be enrolled in remediation. Remediation narrows the curriculum to the extent that students may be required to enroll in remediation and not allowed to enroll in vocational education or other electives. A survey of vocational education directors indicated that 45% of the respondents were not aware of students being removed from or prevented from enrolling in vocational education in order to enroll in remediation; 18% were aware of students being removed or prevented from enrolling; and 37% did not know. Based on their responses, during the 1998-1999 school year an estimated 160 students with learning disabilities, or 2% of the population with learning disabilities, were removed from or prevented from enrolling in vocational education in order to enroll in remediation.[39] An estimated 450 students with learning disabilities, or 6% of the population, may be removed or prevented from enrolling in vocational education during the 1999-2000 school year, the first year in which graduates will be required to achieve the passing score on the GQE.

  Researchers at Indiana University note:

  > Because secondary students who have failed minimum competency tests must enroll in more remedial and required classes than students who achieve passing scores on these tests, remedial classes potentially replace elective and vocational preparation courses

---

[36] Indiana University-Bloomington, School of Education 13.
[37] Indiana University-Bloomington, School of Education 13.
[38] Indiana University-Bloomington, School of Education 13.
[39] The percentage of students who were removed from or prevented from enrolling in vocational education could be higher if the number of students who were reported to have learning disabilities was over reported. In the sample returns, 14% of students on average were reported to have learning disabilities. The Department of Workforce Development reports that 7% of all vocational education students have learning disabilities. If districts reported, for example, that 50 students with learning disabilities would be affected out of a total estimated population of students with learning disabilities of 200, 25% of students with learning disabilities might be affected. However, if the actual number of students with learning disabilities was 100, 50% of the population might be affected.

available to students. This is a serious concern for students functioning at the academic margins and for whom a personally relevant school curriculum could make the difference in engagement and persistence.[40]

MacMillian, Balow, Widaman, and Hemsley suggest that placing a student in a class designed for younger students for remediation may result in the student dropping out because being over age for grade level places a student at risk for dropping out.[41]

- **Though Not Definitive, Some Studies Suggest that GQE Requirements Can Contribute to a Student's Decision to Drop Out.** A study prepared by a research team at Indiana University examined over 40 articles concerning students and minimum competency tests.[42] Another study, High Stakes: Testing for Tracking, Promotion and Graduation, prepared by the National Research Council and published in 1999, also provided an overview of current research.[43] The six findings below were taken from these studies.

  - In 1989, Kreitzer, Madaus, and Haney found that nine of the ten states with the highest dropout rates had graduation exams while none of the states with low dropout rates had graduation exams. The study, however, did not suggest that the presence of these tests necessarily caused higher dropout rates. [44]

  - In 1989, Grissom and Shepard reported that when they examined the effect of grade retention on dropping out of school in three different school systems, they found that being retained in school increased the likelihood of students dropping out from 21% to 27%, depending on the student's gender, ethnic background and school district.[45]

  - In 1990, Catterall interviewed teachers, administrators, and high school students about high school competency tests. While administrators believed that the tests were so easy that they posed no real threat to graduation, students who failed the test at least once were considerably more likely than those who achieved passing scores to report they may drop out of school.[46]

  - In 1990, MacMillan, Balow, Widaman, and Hemsley found that students who failed minimum competency tests were ten times more likely to drop out than those who achieved passing scores.[47]

  - In 1991, MacMillan suggested that school size (smaller being more advantageous); amount of support and resources given to mainstream teachers; vocational training; individualized

---

[40] Indiana University-Bloomington, School of Education 14.

[41] Indiana University-Bloomington, School of Education 10.

[42] Indiana University-Bloomington, School of Education.

[43] Jay Heubert and Robert Hauser, High Stakes: Testing for Tracking, Promotion and Graduation (Washington, D.C.: National Academy Press, 1999).

[44] Indiana University-Bloomington, School of Education 9.

[45] Lorrie A. Shepard and Mary Lee Smith, eds, Flunking Grades: Research and Policies on Retention, (Philadelphia, PA, Falmer Press, 1989) 60.

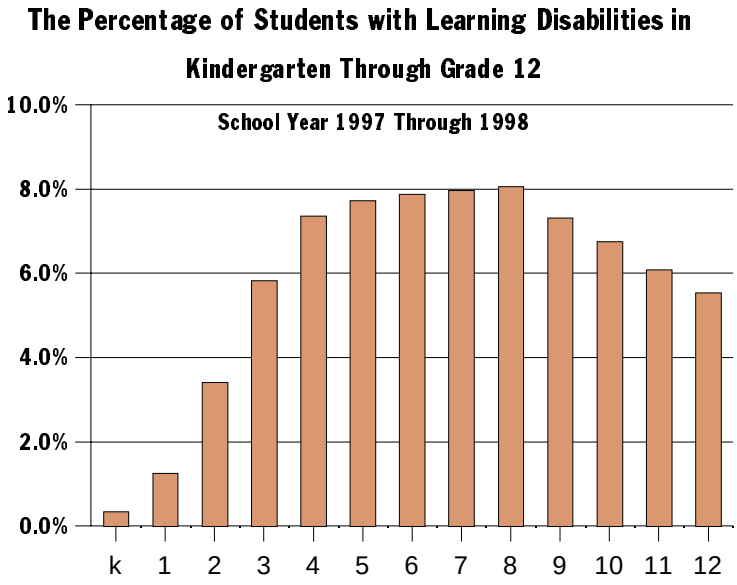
[46] Indiana University-Bloomington, School of Education 11-12.

[47] Indiana University-Bloomington, School of Education 8-9.

instruction; and support services, such as tutoring or counseling, reduced the dropout rate.[48]

- In 1996, Griffin and Heidorn reported that students who were doing well academically but who failed Florida's mandated graduation exam were more likely to drop out than those who were already doing poorly academically. The study did not find a significant difference in dropout rates between low achieving students who failed and those who achieved passing scores. The researchers speculated that the perceived stigma attached to test failure may cause students with higher grades to experience a substantial drop in self-esteem or a sense of embarrassment before their peers.[49]

Figure 18.



As Figure 18 indicates, the percentage of students with learning disabilities peaks in the 8th grade and declines in the later years of high school. Although research does not indicate a definitive relationship between GQEs and dropping out, some studies suggest that GQEs may contribute to a student's decision to drop out. Nonetheless, GQEs may not be the only factor that contributes to a student's decision to drop out. Numerous other factors such as family support, school support services, school size, etc., may also influence a student's decision to drop out.

[48] Indiana University-Bloomington, School of Education 11.

[49] Indiana University-Bloomington, School of Education 9.

Section Eight: Related Issues

Graduating Without Achieving the Passing Score

Public Law 193-1999 places into statute, language based on a provision in the Indiana Administrative Code that allows for a waiver of the results of the GQE under certain circumstances (511 IAC 5-3-3). The law allows all students to graduate without achieving the passing score if they meet certain criteria; however, the term "waiver" or "appeal" is not specifically included. Although the administrative rule has been in place since 1997, placing the provisions in statute may generate greater awareness.

In order to be eligible to graduate without achieving the passing score, a student must take the GQE each year; complete remediation; maintain a C average, and a 95% attendance rate. In addition, the student must obtain from teachers recommendations containing documentation from classroom work of achievement in the areas tested on the GQE for which the student has not achieved the passing score. For students with learning disabilities, case conference committees determine if they meet the criteria. A survey of special education directors indicated that an estimated 4,150 students with learning disabilities in grades 9 through 12 (or 22% of the total population of 18,700) may be eligible for the waiver.[50]

Increase in Referrals

Referring students who are encountering academic problems for evaluation for special education services has sometimes been used as a strategy to keep students from participating in statewide assessments, such as GQEs, and system-wide accountability measures that affect school management or funding. Some literature suggests that when certain exceptions are made for students with disabilities regarding high stakes examinations, referral rates for special education services can increase.[51] Public Law 193-1999 may result in an increase in the number of students referred for evaluation for special education services in order to take advantage of the GQE waiver provisions designed for students with disabilities. A survey conducted by Legislative Services Agency of special education planning districts indicated that referrals for special education evaluation could increase after the passage of Public Law 193-1999. The 27 directors who responded to a question about referrals, representing 41% of the total high school population with learning disabilities, estimated an increase of approximately 234 referrals on an annual basis. This increase represents a 32% increase from the current annual referral levels of 710.

Because evaluations and special education are expensive, school corporations might consider 511 IAC 7-10-2, which provides general education intervention procedures that corporations might explore prior to referring students for special education evaluation.

---

[50] Based on a survey of directors of special education planning districts.
[51] McDonnell, McLaughlin, and Morison 158-159.

Accommodations

Accommodations are variations in the assessment presentation, setting, timing, or response mode that are intended to allow for an accurate assessment of a student's abilities rather than disabilities without rendering the test invalid. Research indicates that in order to create an educational environment where "what students know and are able to do" is accurately measured, assessment accommodations may be necessary.[52] Without appropriate accommodations, students are unable to demonstrate what they know and are able to do.[53]

Everyday Accommodations

Eyeglasses are common examples of everyday accommodations that modify the presentation of material for those with visual impairments. Without these accommodations, some would be unable to demonstrate what they know and are able to do in many situations. For example, failing to pass a driver's license test would be due not to the lack of ability but due to the disability if eyeglasses were prohibited in certain instances.[54]

Accommodations and the Validity and Reliability of the GQE

Eyeglasses are generally accepted because it is commonly understood that without eyeglasses many people would not be able to see well enough to pass a driver's test. However, research suggests that assessment accommodations for disabilities that are not so apparent--such as a learning disability--may not be as widely accepted because neither the disability nor the accommodation may be as easily understood and the accommodations' effects on the validity and reliability of the assessment may be unclear.[55] To determine if an accommodation renders an assessment invalid when the accommodation relates to the subject tested is particularly difficult.[56] However, in certain cases, allowing accommodations seems appropriate.

For example, the North Carolina State Board of Education allowed four newly blinded students the use of a reading scanner on the high school exit exam instead of requiring the four students to take the Braille version. The Board of Education made this exception because each of the four students had been blind for only a short period of time.[57]

---

[52] Thurlow, Elliott, and Ysseldyke 29 and 32.
[53] Thurlow, Elliott, and Ysseldyke 29 and 32.
[54] Thurlow, Elliott, and Ysseldyke 29.
[55] Thurlow, Elliott, and Ysseldyke 30.
[56] McDonnell, McLaughlin, and Morison 171-172.
[57] Bazemore.

Several States Are Involved in Accommodation Research

Several states, including Indiana,[58] are involved in research to determine how accommodations affect the validity and reliability of statewide assessment examinations. Maryland conducts annual accommodation reviews. An open line of communication between school districts and the Maryland Department of Education is an integral part of the review of assessment accommodations.[59] For example, school districts are annually provided a guide that specifies appropriate assessment accommodations. School districts are allowed to use accommodations not contained within the guide, but only upon review and approval of Maryland's Department of Education.

The Indiana Department of Education does not have a formal process by which it reviews and approves accommodations. However, the Department provides school corporations with the ISTEP+ Program Manual, which contains a non-exhaustive list of accommodations. The Department also answers ad hoc questions from school corporations about accommodations and conducts ISTEP+ workshops.[60]

Federal Law Requires That Accommodations Be Provided

Federal law requires that accommodations be determined by the case conference committee and be provided to students with disabilities where appropriate.[61] However, the law does not specify which assessment accommodations are acceptable for which groups of students.[62] Since definitive guidelines do not exist, questions remain about how accommodations should be selected and implemented.

Testing Accommodations That Are Allowed

The Indiana Department of Education provides the following non-exhaustive list of allowable ISTEP+ testing accommodations.[63]

- **Setting**
  - Special lighting conditions.

[58] In 1998, the Department established the State Assessment Task Force in order to develop strategies to help policy makers and school officials administer the ISTEP+ assessment program. The Task Force is working with the University of Wisconsin to develop a checklist for school corporations to use when selecting and implementing assessment accommodations. In addition, the Task Force is studying assessment reliability and validity in collaboration with CTB/McGraw-Hill.

[59] Donna Arnett, Maryland State Department of Education, personal interview, 17 June 1999.

[60] Kevin McDowell and Jeff Zaring, Indiana Department of Education, personal interview, 18 June 1999.

[61] Federal Public Law 105-17.

[62] Federal Public Law 105-17.

[63] Indiana Department of Education, Center for Assessment, Research, and Information Technology, Indiana Statewide Testing for Educational Progress Plus Program Manual (Indianapolis: Indiana Department of Education, 1998).

- Preferential seating.
- Access to special furniture.
- Testing in small group setting.
- Testing individually.

- **Timing and Scheduling**
  - Extended testing time.
  - Double testing time.
  - Time of day for administration is altered.
  - Additional breaks as necessary.
  - Test administered in several sessions.

- **Presentation**
  - Braille.
  - Signing Interpreter.
  - Intelli-talk assistive technology device.
  - Questions read to student (except questions that measure reading comprehension).
  - Additional Exam Examples.
  - Visual magnification device.
  - Auditory amplification device and/or noise buffers.
  - Pencil grip or specialized writing instrument.
  - Large print.
  - Test directions signed.
  - Test directions read aloud.

- **Response Mode**
  - Oral response (answer sheet filled in by other).
  - Student signs responses to interpreter.
  - Scribe to write out response.
  - Calculator (student must still show work).
  - Circle answers rather than bubble (other student fills in answer bubble).
  - Slant Board to hold testing material at angle.
  - Enlarged answer sheet.
  - Word processor/electronic braille (no access to spell check or grammar check).

Testing Accommodations That Are Not Allowed

The Indiana Department of Education provides the following non-exhaustive list of ISTEP+ testing accommodations that are not allowed.[64]

- **Timing and Scheduling**

[64] Indiana Department of Education, Indiana Statewide Testing for Educational Progress Plus Program Manual.

- Unlimited time.

- **Presentation**
  - Directions and story problems reduced in language complexity.
  - Reading aloud the reading comprehension section of the GQE.[65]
  - Color coded prompts for arithmetic functions.
  - Foreign language.

- **Response Mode**
  - Foreign Language.

Approximately 90% of Students with Learning Disabilities Used Accommodations

Of the 3,966 students with learning disabilities who took the 1998 GQE, approximately 90% used an accommodation on the language arts portion, while approximately 89% used an accommodation on the math portion. Seventy-seven percent had the time allowed to take the test extended (by less than double time); 62% had instructions read aloud; and 6% were allowed double the time to take the test.

Although students are allowed to use accommodations, the majority of these students do not achieve the passing score. The reason why these students fail to achieve the passing score even though they employ accommodations allowed by the ISTEP+ Program Manual is unclear.

Legal Concerns Regarding Assessment Accommodations

The National Commission on Testing and Public Policy found that "the most common way to challenge important tests is through the courts."[66] Courts, however, vary in the degree of deference they give to educators responsible for test policy and practice.[67] Several courts have ruled that students who, because of their disability, do not have the skills needed to achieve the passing score, have no right to demand that a district or state modify its academic standards.[68] On the other hand, the Office for Civil Rights (1995) has found that a refusal to accommodate

[65] The fact that the Indiana Department of Education does not allow this accommodation is an issue in a lawsuit against the State described in a later section of this report.

[66] Heubert and Hauser 251.

[67] Heubert and Hauser 252.

[68] Thurlow, Elliott, and Ysseldyke 188.

certain students with disabilities violates the federal Rehabilitation Act of 1973.[69]

In May 1998, four Indiana students filed a complaint in the Marion County Superior Court against the Indiana Department of Education.[70] The students alleged, among other concerns, that they were not provided with accommodations as stated in their IEPs. The court acknowledged that the Department does not allow the reading portion of the GQE to be read aloud to the student. For one of the complainants, the student's IEP provided that the student have all portions of tests read aloud. The court determined that the student and all other similarly situated students could continue the suit against the state.

Research Is Inconclusive on the Effects of Certain Assessment Accommodations

Research is inconclusive with regard to the effects of certain assessment accommodations on statewide assessments.[71] The Department, through its work with the State Assessment Task Force, is refining its non-exhaustive list of allowable accommodations. Working with the University of Wisconsin, the Department is continuing the search for effective strategies to select and implement assessment accommodations while studying their effects on testing validity and reliability.[72] Other efforts are underway to provide insight into assessment accommodations and statewide assessments.[73] Additional research may establish firm criteria through which to make informed decisions regarding assessment accommodations.

---

[69] Kevin McDowell, Susan Traynor, and Marsha Volk, Special Education Law in Indiana: Rights and Responsibilities, (Altoona: Professional Development Network, 1999) A32.

[70] Rene et al v. Reed, Marion County Superior Court, Cause Number 49 D 12-9805-CP-730, Judge S.M. Thompson.

[71] Thurlow, Elliott, and Ysseldyke 62.

[72] University of Wisconsin, Wisconsin Center for Educational Research and Department of Educational Psychology, Using Testing Accommodations Wisely: Facilitating the Meaningful Participation of Students with Disabilities in ISTEP+ (Madison: University of Wisconsin, 1999).

[73] Thurlow, Elliott, and Ysseldyke 63.

Section Nine: Other Legal Issues Pertaining to GQEs

Courts, civil rights entities, and citizens in general have monitored the GQE and its use. A study supported by the National Academy of Sciences and the U.S. Department of Education[74] urges policy makers to consider the following questions in the design, development, and implementation of mandatory testing.

Discrimination

- Is the test used to discriminate intentionally or to continue prior discrimination?
- Does the test have a disparate impact on a protected group of citizens?

With respect to the discriminatory use of the GQE, no allegations of discrimination have been brought to the attention of the Indiana Department of Education.

Due Process Concerns

- Was sufficient notice of the testing requirement given?
- Were students taught the subjects tested on the exam?

With respect to due process concerns, in May 1998, four Indiana students with purported disabilities (not necessarily learning disabilities) filed a complaint in the Marion County Superior Court against the Indiana Department of Education.[75] The students, represented by the Indiana Civil Liberties Union (ICLU), argued, in part, that they did not receive adequate notice of the testing requirement. The complaint stated that students were notified of the requirement to achieve the passing score on the GQE in the spring of 1997. Students were first tested in the fall of 1997. The plaintiffs argued that the time between the notice and the test did not allow the students sufficient time to prepare adequately for the test. The plaintiffs requested to sue on behalf of all students in similar situations (a class action).

In April 1999, the court granted the motion to certify a class in part and denied the motion in part. First, the court found that the students had not yet achieved all other graduation requirements; therefore, the case was not ripe for judicial review. Second, the plaintiffs failed to exhaust all administrative remedies (the local due process procedure outlined in federal law). Third, the local case conference committee and the local school corporation determined that the students should take the GQE and not the State Department of Education. The court noted that IC 20-10.1-17-10 provides that the IEP specifies whether the student is to participate in statewide testing in accordance with federal law. The court

[74] Heubert and Hauser, 50.
[75] Rene et al v. Reed.

also noted that none of the plaintiffs had attempted to obtain a diploma under the waiver provisions that were available by administrative rule.

The court did, however, maintain that students whose IEPs specify that all portions of an exam must be read aloud during testing could continue with the litigation because the State does not allow the reading comprehension portion of the GQE to be read aloud.

With respect to the inadequate notice, the Department argues that in 1991 it notified public schools of the math academic standards by grade level (then called proficiencies) upon which the GQE is based. The Department notified school corporations of the language arts academic standards (then called proficiencies) in 1992. The Department also argues that Public Law 19-1995 notified special education directors and school corporations of the exit exam--previously referred to as the Gateway Exam. Finally, the Department contends that students are allowed to retake the GQE at least once each year.

With respect to the allegation that students were not exposed to state academic standards covered on the GQE, the Department argues that the GQE is curriculum based. Indiana Code 20-10.1-16-4 requires that the GQE measure the degree to which the students have achieved the state academic standard. Additionally, Indiana Code 20-10.1-16-6(e) requires school corporations to provide the curriculum necessary for students to achieve the standard or passing score on the GQE. For students with learning disabilities, case conference committees should ensure that students capable of earning a diploma are provided with the appropriate instruction.

In addition to the lawsuit, a survey of directors of special education planning districts suggests that other students with learning disabilities may not have been adequately prepared to take the GQE. Based on a survey of directors of special education planning districts (conducted by Legislative Services Agency in May 1999), the directors estimated that approximately 51% of 10th and 11th grade students with learning disabilities who took the GQE had sufficient curriculum preparation. These results indicate that other students with learning disabilities may be in situations similar to those students who filed the complaint.

Section Ten: Additional Study

A Review of IEPs Could Provide Additional Insight into the Impact of the GQE on Students with Learning Disabilities

Legislative Services Agency contacted special education planning districts in Indiana[76] to obtain sample IEPs for high school students with learning disabilities. For each student, the staff requested IEPs for three consecutive years--the year before the student took the GQE, the year during the GQE administration, and the year subsequent to the GQE. A review of the IEPs from 25 special education planning districts indicated that a random sample could provide insight into the impact of the GQE--especially after the year 2000 when the first cohort of students subject to the GQE conclude their senior year.

Based on LSA's analysis of IEPs, further review could provide insight into the following:

1. Changes in academic standards set for students with learning disabilities as a result of the GQE requirement.
2. Additional support mechanisms made available to students with learning disabilities.
3. Curriculum changes resulting from the GQE requirement.
4. Changes in enrollment in vocational education or other electives resulting from required remediation.
5. Changes in the dropout rate for students with learning disabilities.
6. Changes in student performance on the GQE.
7. Changes in the rates of referral for evaluation for special education services.

Special Education Planning Districts Could Benefit from a Substantive IEP Review

Although much diversity exists regarding each planning district's IEP format, Legislative Services Agency found that, in general, special education planning districts satisfied federal IEP requirements. Nonetheless, a regular substantive review of special education planning district IEPs by an agency such as the Indiana Department of Education could enhance the provision of services to students with learning disabilities. For example, Legislative Services Agency observed that special education planning districts often do not adequately document how a student's learning disability specifically affects the student's levels of performance. Federal law requires this information, and such information is necessary in order to establish annual goals that are related to the student's disability. A substantive review could provide special education planning districts with strategies for linking annual goals with levels of performance based on the student's disability. The Department could provide criteria by which a planning district could determine whether the annual goals have been met from year to year. A substantive review

[76] Indiana has 65 special education planning districts that are comprised of Indiana's 294 school corporations.

could also provide special education planning districts with examples of what an IEP should contain and accomplish.

Using the IASEP for All Students with IEPs

Given that the general IEP format varies significantly throughout the State and that IEPs are not electronically maintained, such a substantive review of separate hard copy files could be time-consuming and labor intensive. IEP information will be maintained electronically for students with disabilities who are subject to the IASEP. If districts maintained information in the IASEP computer-based program for all students with IEPs, a substantive review could be conducted more effectively and efficiently.

Public Law 12-1998 provides that individuals who develop a student's IEP can determine if the student will participate in the IASEP. Determination is based on whether all or part of ISTEP+ is appropriate for the student. By requiring the electronic documentation of assessment strategies and student outcomes with the IASEP for all students with learning disabilities, educators would be able to effectively record IEP information to ensure compliance with federal law. In addition, graduation strategies and outcomes such as ISTEP+ examination scores could be maintained for future review.

Conclusion

Based on various literature reviews, independent surveys, IEP analyses, and interviews with educators and interested parties, the GQE requirement has affected and will likely continue to affect the graduation strategy, the curriculum selected, and the learning environment provided for students with learning disabilities. The observations and data contained within this report provide baseline data. Because the Class of 2000 is the first graduating class affected by the GQE, the Department may wish to establish benchmarks for future reference. However, in addition to monitoring the effects of the GQE, other factors that influence the dropout rate--such as support services, curriculum alignment, remediation, and all other factors that significantly affect the dropout rate--must also be considered.

Works Cited

Arnett, Donna, Maryland State Department of Education. Personal interview. 17 June 1999.

Bazemore, Mildred, North Carolina Department of Public Instruction. Personal interview. 13 Oct. 1998.

CTB/McGraw-Hill. LD students: Pass Rates and Testing Accommodation Summaries by Corporation. Monterey: CTB/McGraw-Hill, 1999.

Gerber, Paul, and Dale Brown, eds. Learning Disabilities and Employment. Austin: PRO-ED, Inc., 1997.

Heubert, Jay, and Robert Hauser, eds. High Stakes: Testing for Tracking, Promotion, and Graduation. Washington, D.C.: National Academy Press, 1999.

Indiana Department of Education. Center for Assessment, Research, and Information Technology. Indiana Statewide Testing for Educational Progress Plus Program Manual. Indianapolis: Indiana Department of Education, 1998.

Indiana Education Information Center. Great Expectations: A Report on Employer Expectations in Indiana. Indianapolis: Indiana Education Information Center, 1999.

Indiana University. School of Education. Equity through Accountability? Mandating Minimum Competency Exit Examinations for Secondary Students with Learning Disabilities. Bloomington: Indiana University, 1998.

McDonnell, Lorraine, Margaret McLaughlin, and Patricia Morison, eds. Educating One & All: Students with Disabilities and Standards-Based Reform. Washington, D.C.: National Academy Press, 1997.

McDowell, Kevin, Jeff Zaring, Indiana Department of Education. Personal interview. 18 June 1999.

McDowell, Kevin, Susan Traynor, and Marsha Volk. Special Education Law in Indiana: Rights and Responsibilities. Altoona: Professional Development Network, 1999.

McLeskey, James, Ph.D., Indiana University School of Education. Personal interview. 27 May 1999.

Mercer, Cecil. Students with Learning Disabilities. Upper Saddle River: Prentice-Hall, Inc.,1997.

Redelman, Derek, Indiana Education Information Center. Personal interview. 10 June 1999.

Rene et al v. Reed, Marion County Superior Court, Cause Number 49 D 12-9805-CP-730, Judge S.M. Thompson.

Shepard, Lorrie A. and Mary Lee Smith, eds. Flunking Grades: Research and Policies on Retenti

on. Philadelphia, PA: Falmer Press, 1989.

Thurlow, Martha, Judy Elliott, and James Ysseldyke. Testing Students with Disabilities: Practical Strategies for Complying with District and State Requirements. Thousand Oaks: Corwin Press, Inc.. 1998.

U.S. Department of Education. Calculating Graduation and Dropout Rates: A Technical Assistance Guide. Rockville: Westat, 1998.

University of Wisconsin. Wisconsin Center for Educational Research and Department of Educational Psychology. Using Testing Accommodations Wisely: Facilitating the Meaningful Participation of Students with Disabilities in ISTEP+. Madison: University of Wisconsin, 1999.